

MD SHOUMIQUE HASAN

✉ shoumique@gmail.com | 📞 +88-01762-000-634
🌐 github.com/shoumique | [linkedin.com/in/shoumique](https://www.linkedin.com/in/shoumique)

Skills

Languages: Python, C/C++, PHP, JavaScript, SQL

Technologies & Tools: Django, FastAPI, Machine Learning, Odoo, AWS, EC2, Lambda, DynamoDB, RDS, S3, GCP, Compute Engine, Google Cloud Storage, Cloud SQL, Docker, Apache, Nginx, PostgreSQL, Node.js, Express.js, Git

Work Experience

BJIT, Dhaka

Aug 2021 - Present

Senior Software Engineer

Jul 2024 - Present

NDBS DATAHUB

- Collaborated with a team to develop a comprehensive automation process for seamless data migration between multiple databases and storage systems using AWS services.
- Contributed to the engineering of Step Functions with AWS Lambda to efficiently read data from Amazon RDS and CSV files, process it, and transfer it to target destinations, including other RDS tables, File System, and S3 buckets.
- Played a key role in implementing a robust system for automating file handling, ensuring that source files are processed, stored, and cleared efficiently, optimizing resource usage and maintaining data integrity.
- Worked with a range of AWS technologies, including EC2, S3, AWS Lambda, AWS Step Functions, Amazon DynamoDB, Amazon RDS, AWS CodePipeline, and GitHub, to create a scalable and reliable solution for the client.

Software Engineer

Nov 2021 - Jun 2024

STARTUP STUDIO

- Played a crucial role in building one of Japan's largest startup ecosystems, aimed at fostering open innovation by connecting startups with large enterprises, venture capitalists, and other stakeholders.
- Achieved significant performance improvements by profiling and optimization, reducing login and signup times from several seconds to under a second for a large and active user base.
- Led efforts in cloud cost optimization, reducing the client's cloud expenditure by approximately 40% through strategic resource management and optimization.
- Applied CI/CD practices using GitHub Actions to streamline deployment and ensure continuous integration.
- Django, GCP, Compute Engine, GitHub Actions, Redis, Celery, Memcached, jQuery, Cloud SQL, Django Debug Toolbar, Silk, and cProfile.

DRIVER

- Contributed as a Backend Engineer to the DRIVER project, a World Bank initiative customized for Dhaka Metropolitan Police funded by JICA.
- Successfully automated the transformation and migration of 30 years of road incident data (1990-2020) from an MS-DOS software system into the new platform, ensuring 0% data loss.
- Developed and integrated predictive algorithms to analyze incident data, forecast danger areas, and predict red zone areas, incorporating machine learning techniques into the system.
- Overcame significant challenges in data migration, leading to a seamless transition to the new system and was rewarded with a performance bonus for the exceptional work.
- Django, Machine Learning, Django REST, AWS EC2, RDS, GeoDjango, Docker, Celery, Redis, Angular JS

BJIT ERP

- Led and mentored a team in developing modules for Odoo 16 and successfully migrating data from Odoo 11, tackling the challenge of significant structural changes within a tight deadline.
- Developed and optimized Python scripts to efficiently migrate a substantial volume of records across four key modules, ensuring data integrity and a smooth transition to the new system.
- Successfully managed the complexities of the migration, delivering the project on time and significantly improving the performance and capabilities of the Odoo 16 environment.
- Python, Odoo, XML, owl.js, PostgreSQL, Redmine, and Gerrit

Trainee Software Engineer

Aug 2021 - Oct 2021

BJIT ACADEMY

- Joined the team as a fresher and trainee software engineer, focusing on acquiring foundational skills.
- Developed soft skills such as effective communication, team collaboration, problem-solving, and time management and technical skills such as Scrum, Git, Cloud, Software Development Practices, and Software Development Life Cycle (SDLC) through various training programs.

Education

East West University, Dhaka

Mar 2017 - Jun 2021

B.Sc. in Computer Science and Engineering

[Award: Second Highest Distinction] **CGPA: 3.83/4**

Relevant Coursework: Object Oriented Programming, Databases, Discrete Maths, Data Structures and Algorithms, Operating Systems, Computer Networks, Machine Learning, Data Mining, Advance Data Structures and Algorithms, Information Retrieval, Image Processing

Project Work

- **Bangla Handwritten Character Recognition Enhancement (2021):** Developed a robust system to improve Bangla handwritten character recognition by addressing outliers and class imbalances in the dataset. Proposed and implemented an Autoencoder-based model for outlier detection. Utilized Deep Convolutional Generative Adversarial Networks (DCGAN) to balance class distributions. Trained ResNet-50 classifiers on the cleaned and balanced datasets, achieving 97.95% and 97.92% test accuracy, respectively, compared to 97.63% on the original dataset. Python, TensorFlow, Keras, OpenCV.
- **Designed a Full-Fledged Network (2020):** Engineered a comprehensive network infrastructure for an organization, incorporating multiple subnets to optimize network performance and security. Implemented subnetting to ensure efficient IP address utilization and network segmentation. Configured routing protocols and network devices to support scalable and resilient network operations. Utilized tools like Cisco Packet Tracer and Wireshark for network design and analysis.
- **Prefix & Postfix Calculator (2019):** Developed a calculator application to evaluate mathematical expressions using Prefix and Postfix notation. Implemented algorithms for parsing and evaluating expressions, ensuring accurate and efficient calculations. Designed the user interface for ease of use and integrated error handling to manage invalid input. Technologies used include Python and Tkinter for GUI development.

Awards and Certificates

- **Undergraduate Teaching Assistant at EWU:** Conducted practical classes of the following courses: Object-Oriented Programming, Data Structures, Algorithms and Software Engineering
- Scrum Team Member Accredited Certification from International Scrum Institute™
- Fundamental Engineering Course from BJIT Academy
- Machine Learning and Deep Learning Specialization on Coursera